



REV:	<b>ENGINEERING DATA REQUIREMENTS</b> (ATTACHMENT "A")	
NOTE: MILITARY SPECIFICATIONS I/STANDARDS WILL NOT BE FURNISHED IN THE BID SET.		
1. THE FOLLOWING INSTRUCTIONS ARE FURNISHED FOR THE MANUFACTURE OF Spring, Torsion - Downlock, MLG		
2. PART NUMBER 68A412754-2003	3. NATIONAL STOCK NUMBER 5360 01 250 7458LE	
4. THE FOLLOWING SPECIFICATIONS/STANDARDS, ETC., WILL BE USED IN LIEU OF THE DATA INDICATED. THE SUPERSEDED DATA WILL NOT BE FURNISHED UNLESS SO INDICATED.		
5. Grind per MIL-STD-866 may be used as an alternate to PS20710.		
6. Shot Peen per SAE AMS-S-13165 may be used as an alternate to PS14023.		
7. Perform Fluorescent Penetrant Inspection per ASTM E 1417, Type I, Method B or C, Level 3 or 4 in lieu of PS21202, with the following acceptance/rejection criteria: NO DEFECTS ALLOWED. The intent of NO DEFECTS ALLOWED is that the inspection is conducted at the required sensitivity level and there shall be no indications allowed. The inspector performing the inspection shall be certified to Level II with the inspection procedure developed by a Level III as specified in NAS-410.		
8. Heat Treat per SAE AMS-H-6875 may be used as an alternate to PS15238.		
9. Apply one coat epoxy waterborne primer per MIL-PRF-85582 Type I, Class 2 in lieu of note 15. Alternate one coat of epoxy polyamide primer per MIL-PRF-23377 Type I. Apply two topcoats polyurethane per MIL-PRF-85285 Type I, color 17925 (white) per FED-STD-595, in lieu of MIL-C-83286, which has been cancelled.		
10. Marking & Identification per MIL-STD-130 may be used as an alternate to PS16001.		
11. Passivate per SAE AMS-QQ-P-35 may be used as an alternate to PS13001.		
12. Interpret Drawing per DOD-STD-100 may be used as an alternate to 40M114.		
13. OO-ALC/LILE System Engineering retains all rights to review and accept Material Review Board (MRB) dispositions prior to shipment of discrepant item. All deviations, minor and major, from the engineering drawing package shall be submitted for MRB disposition.		
14. Prior to contract award, the contractor shall certify to the Government in writing full compliance with manuals, specifications, and standards called out and required for the manufacture of this contracted landing gear component/assembly. Contractor is responsible to completely search these manuals, specifications, and standards and fully understand the requirements necessary to manufacture landing gear components. Any questions can be forwarded to OO-ALC/LILE.		
15. After contract award, the successful bidder shall provide a copy of the processing documentation (routing documents and process specifications) to LILE for final review before production begins.		
PREPARED BY Kathée Wiberg	SYMBOL LGMPM	DATE 16 Feb 01

**SOURCE QUALIFICATION REQUIREMENTS**  
(PL 98-525, SECTION 2319)

STOCK NR (NSN)5360-01-250-7458LE  
NOUN: Spring, Helical

PART NUMBER (P/N)68A412754-2003  
AIRCRAFT: F-15E

**SECTION C.**

**QUALIFICATION REQUIREMENTS THAT MUST BE SATISFIED TO BECOME A QUALIFIED SOURCE**

1. Because of the need for uninterrupted item support to military aircraft systems and in keeping with the requirements of PL 98-525, the current acquisition need not and generally will not be delayed to provide an offerer an opportunity to qualify. Normal acquisition practices at OO-ALC should preclude the denial of opportunity to any interested offerer.
2. The offerer must provide a pre-contract award qualification article, which meets the requirements of the engineering drawings, material specifications, and process specifications, as well as the testing described by section D of this document. However, successful completion of the qualification testing does not guarantee any contract award. If the offerer is deemed qualified and awarded the contract, a post-contract award first article exhibit may be required to verify production capability.
3. The required materials will be procured from a qualified source and will meet the requirements of their respective specifications. The offerer will assure that the material supplier has accomplished this and will submit certified documentation of accomplishment of the above requirements to the purchaser along with the pre-contract award qualification article.
4. If forgings and/or castings are required by the applicable engineering data, they will be obtained from the original certified source/sources using the original certified forging/casting procedures and dies. Forging lot qualification will be accomplished as required by the applicable forging drawings. The offerer will assure that this has been accomplished by the forging source and will submit such to the government along with the pre-contract award qualification article.
5. The qualification article shall demonstrate full compatibility and comparability with existing parts, and once submitted, will be subjected to such testing as deemed necessary by the government, to insure the article meets all dimensional, processing, and functional requirements. Such testing may result in the destruction of the article. Following completion of necessary testing and evaluation, the article, no matter what its condition, shall be returned to the contractor or disposed of at his discretion and direction, whether it was found acceptable or not.
6. Form verification: The Government's Quality Verification Center will verify compliance with dimensional data requirements. Material and process compliance will also be verified as required.
7. Fit/function verification: Existing components and Government test stands/fixtures will be utilized to verify physical interface and functional performance of articles.
8. Testing for material and process compliance
  - (a) Material analysis
  - (b) Heat treat
  - (c) Grinding
  - (e) Plating
  - (f) Finish
  - (g) Other

**SOURCE QUALIFICATION REQUIREMENTS**

(PL 98-525, SECTION 2319)

STOCK NR (NSN)~~5360-01-250-7458~~LE

PART NUMBER (P/N)~~68A412754-2003~~

NOUN: Spring, Helical

AIRCRAFT:F-15E

9. Remarks:

- a. Organic verification capabilities exist at OO-ALC.
  - b. Test requirements outside organic capabilities will be contracted out to independent laboratories.
10. The estimated cost of government testing and evaluation is 5000
11. Maximum time for testing of the qualification article will not exceed 120 days from receipt at testing agency.

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**SECTION D.**

QUALIFICATION TEST REQUIREMENTS MUST BE SATISFIED FOR PROSPECTIVE BIDDER TO BECOME A QUALIFIED SOURCE.

1. Testing to be performed by prospective source on two each springs is as follows: Applicable -1001 springs will be cycled from the installed 2.03 inch displacement to a 4.07 inch displacement, for a minimum of 20,000 cycles in accordance with the following schedule.

- a. Insert and record springs dimensional criteria in free state including displacement angle of ends
- b. Cycle springs per note 15 for 1,000 cycles. Put springs at the installed position pre-load displacements and hold for 24 hrs. Following this sequence, measure each spring. Free displacement angle as well as installed position torque and max. working piston torque. Record all data and relate to applicable spring serial number.
- c. Repeat (b) above until applicable springs have accumulated 5,000 cycles.
- d. Cycle springs per drawing note 16 for 5,000 cycles. Put springs at installed position pre-load for 245 hrs. Following this sequence measure free spring displacement angle as well as installed position torque and max. working position torque. Record all data and relate applicable spring serial number.
- e. Continue sequence established by paragraph (d) to failure or an accumulation of 20,000 cycles.
- f. Inspect springs for cracks per MIL-STD-1949. Use direct current; wet continuous method, fluorescent type. The inspection individual will be certified to at least level II, per MIL-STD-410.
- g. Submit data accumulated during above testing together with supporting data showing test and measurements equipment to the government's cognizant engineering activity along with the applicable pre-qualification item.

## PR, MIPR, OR DOCUMENT NUMBER

FD2020-03-2522

**3. INSTRUCTIONS TO CONTRACTING OFFICER:** Insert appropriate clause(s) into Section D for applicable item(s) as indicated below.

1. **PACKAGING REQUIREMENTS:** Block 1 shall always be completed and further defined in Blocks 2, 3, or 4. The term "Item ID" refers to the item number, item name, NSN/MIAC, part number, or any other way of identifying a particular item. MIL-STD-2073-1 represents Military Preservation (PRES) and Packing (PACK). Military packing consists of levels A, B, and Minimum (M). ASTM D3951 could be substituted by another document if specified in Block 2. Quantity Per Unit Pack (QUP) and Commercial Best Practice (CBP) are abbreviated. The reverse side of this form has the European Union environmental requirements.

AFMCFARS 5352.247-9005, SHIPPING CONTAINER MARKING. ITEM  
NAME(S) OR NSN/MMAC

AFMCFARS 5352.247-9006, MARKING OF WARRANTED ITEMS.  
ITEM NAME(S) OR NSN/MMAC \_\_\_\_\_

AFMCFARS 5352.247-9007, SPECIFICATION COMMERCIAL PACKAGING (ASTM D3951). ITEM NAME(S) OR NSN/MMAC

AFMCFARS 5352.247-9008, CONTRACTOR COMMERCIAL PACKAGING (*Commercial Best Practice*). ITEM NAME(s) OR NSN/MMAC

AFMCFARS 5352.247-9009, MILITARY PACKAGING AND MARKING.  
ITEM NAME(S) OR NSN/MMAC

AFMCFARS 5352.247-9010, ENGINEERED OR SPECIALIZED CONTAINERS (CDRS). ITEM NAME(S) OR NSN/MMAC \_\_\_\_\_

AFMCFARS 5352.247-9011, PACKAGING AND MARKING OF HAZARDOUS MATERIAL. ITEM NAME(S) OR NSN/MMAC

AFMCFARS 5352.247-9012, PACKAGING FOR INSPECTION AND ACCEPTANCE AT DESTINATION ITEM NAME(S) OR NSN/MMMAC

AFMCFARS 5352.247-9013, PACKAGING DATA (Coded and/or Special Packaging Instructions) ITEM NAME(s) OR NSN/MMAC \_\_\_\_\_

4. CONEN DATA: Coned requirement's shall be interpreted in accordance with MIL-STD-2073-1.

ITEM	QUANTITY		PRES METH	C D	PRES MTL	WRAP MTL	CUSH DUNN	C T	UNIT CONT	INT CONT	U C	SPEC MKG	UNIT PACK WEIGHT		UNIT PACK SIZE				UNIT PACK CUBE		O P I
	QUP	ICQ											10	10	LENGTH	WIDTH	DEPTH	10	WHOLE CUBE	1000TH	
0001	001	AAA10			100	JAGT		XD3		X	0000	0000	0000	18	0055	0055	0013	0000	0022	0	

**ORGANIZATION**

LGMPR

PACKAGING SPECIALIST (Typed Name/Signature)

*For Dever*

DATE

20 Nov 02

AFMCM FORM 158, 20020102 (EF-V1)

**PREVIOUS EDITION IS OBSOLETE**

SEE REVERSE SIDE